

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/40056

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 C02F1/28 C02F1/52 B01J20/06 B01J20/32 B01J20/34 B01D24/28 B01D24/36 B01D24/46														
According to International Patent Classification (IPC) or to both national classification and IPC														
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC 7 C02F B01J B01D														
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched														
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ														
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>GB 471 277 A (C F BURGESS LAB INC) 1 September 1937 (1937-09-01) page 1, line 63-71, 93-106 page 3, line 94-103 page 4, line 71-96 ---</td> <td>1</td> </tr> <tr> <td>X</td> <td>US 6 132 623 A (NIKOLAIDIS NIKOLAOS P ET AL) 17 October 2000 (2000-10-17) claims 1,2,6 column 2, line 48-59 column 5, line 7-14, 50-59 ---</td> <td>1,2,11</td> </tr> <tr> <td>X</td> <td>DE 27 24 254 A (BBC BROWN BOVERI &amp; CIE) 9 November 1978 (1978-11-09) claim 1; example 3 page 3, line 11 -page 4, line 3 --- -/--</td> <td>1-22</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	GB 471 277 A (C F BURGESS LAB INC) 1 September 1937 (1937-09-01) page 1, line 63-71, 93-106 page 3, line 94-103 page 4, line 71-96 ---	1	X	US 6 132 623 A (NIKOLAIDIS NIKOLAOS P ET AL) 17 October 2000 (2000-10-17) claims 1,2,6 column 2, line 48-59 column 5, line 7-14, 50-59 ---	1,2,11	X	DE 27 24 254 A (BBC BROWN BOVERI & CIE) 9 November 1978 (1978-11-09) claim 1; example 3 page 3, line 11 -page 4, line 3 --- -/--	1-22
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.														
* Special categories of cited documents : <table border="0"> <tr> <td>           *A* document defining the general state of the art which is not considered to be of particular relevance            *E* earlier document but published on or after the international filing date            *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)            *O* document referring to an oral disclosure, use, exhibition or other means            *P* document published prior to the international filing date but later than the priority date claimed         </td> <td>           *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention            *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone            *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.            *&amp;* document member of the same patent family         </td> </tr> </table>			*A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family										
*A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family													
Date of the actual completion of the international search  27 April 2004		Date of mailing of the international search report  06/05/2004												
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer  Harf, J												

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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A	US 4 366 128 A (WEIR DONALD R ET AL) 28 December 1982 (1982-12-28) claim 1 column 1, line 27-35 column 2, line 19-31 ---	22
A	US 5 173 194 A (HERING JR CARL J) 22 December 1992 (1992-12-22) figure 1 -----	23,28

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Information on patent family members

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